TRAFFIC ENGINEERING

A News Letter

Published by the

INSTITUTE OF TRAFFIC ENGINEERS

One Park Avenue, New York, N. Y.

Edited by the Library Committee FRANK B. CURRAN, *Chairman*

VOL. VI JANUARY 1936 NO. 9

INSTITUTE DINNER AND MEETING

GREATER NEW YORK SAFETY CONFERENCE

The Seventh Annual Greater New York Safety Conference will be held at the Astor Hotel, New York City, March 3, 4 and 5. The entire field of accident prevention - in industry, on the streets and highways, in the home, and in the air - will be covered in 33 complete half-day sessions.

The Institute of Traffic Engineers will have a dinner and informal meeting at the Astor Hotel March 3, in conjunction with the Conference. Secretary-Treasurer Harold F. Hammond has promised to send all members copies of the program.

EVALUATING SAFETY ENGINEERING

Burton W. Marsh (Member), Director, Safety and Traffic Engineering, American Automobile Association, Washington, D. C., is compiling a file of statements or reports which give evidence of the value and need of traffic engineering. If any member of the Institute has anything he can contribute to Mr. Marsh's collection, and will do so, it will be greatly appreciated. The material desired might include specific instances showing how traffic engineering solved a problem, saved money, reduced accidents, et cetera; and copies of speeches or articles by prominent or influential persons discussing the value of traffic engineering.

"THE YEAR'S BEST"

Traffic Bulletin, published in Ann Arbor, Michigan, contains in its January issue a list of traffic articles headed "The Year's Best." Included in the list, which will be published in TRAFFIC DIGEST for February, are articles by five members of the Institute. They are: Sidney J. Williams (Director); Bruce D. Greenshields (Assoc. Mem.); Miller McClintock (Member); E. B. Lefferts (Member); and W. G. Eliot 3rd (Assoc. Mem.).

PHOTO-ELECTRIC TRAFFIC RECORDER

The U. S. Bureau of Public Roads has developed a traffic recorder for automatic traffic counts in State surveys.

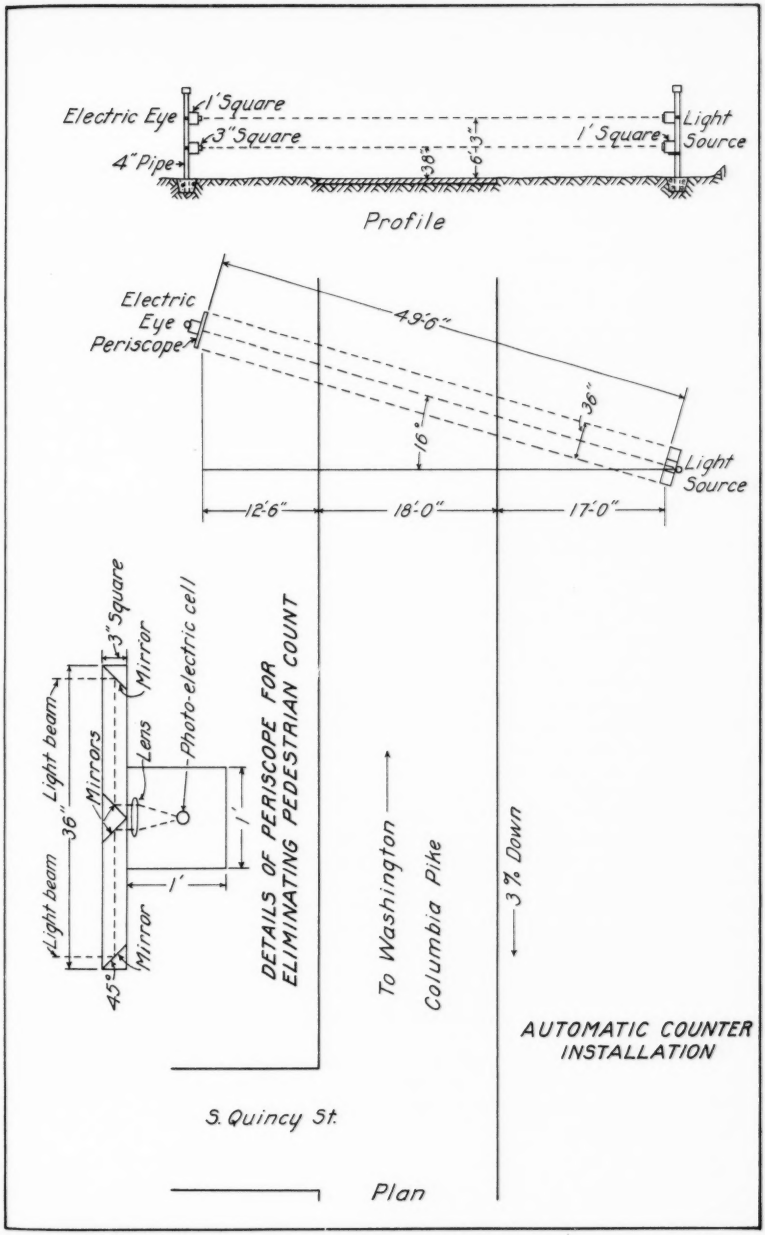
The device consists of a magnetic counter operated through relays by a beam of light directed across a roadway upon a photo-electric cell. Each interruption of the beam of light by passing vehicles is recorded by the counter. The recorder as set up consists of two 4-inch iron-pipe posts planted on either side of the roadway, 49 feet apart, in each case far enough from the edge of the roadway to eliminate any hazard to passing traffic. On these posts are mounted the recording cells and light sources. At present, two cells are in use, the first mounted so that the beam of light is 38 inches, and the second 6 feet 3 inches above the center of the roadway.

In the case of the lower cell a special arrangement in the form of a periscope has been developed to prevent the operation of the device by pedestrians. This periscope consists of a metal tube 36 inches long, containing four small mirrors, one at either end and two at the center. Two beams of light are directed across the road to strike the mirrors at the ends of the tube. The light is reflected to the mirrors at the center, and from there to the photo-cell. Both beams of light must be interrupted simultaneously to operate the counter. Cutting either beam of light singly will not operate the counter, as the other beam is still directed through the mirrors upon the cell. The accompanying figures (page 8) illustrate the set-up.

The upper beam is set high enough not to be interrupted by passing pedestrians, and no periscope is used. The posts are so placed on either side of the road that the beams of light are directed across the roadway at an angle of about 16 degrees in order to eliminate as far as possible the breaking of the beams more than once for each vehicle (by spare tires, accessories, etc.).

One of the light sources is equipped with a special infra-red ray filter, which eliminates most of the visible rays and has the advantage of attracting very little attention.

The device is very accurate in recording all passing vehicles, but does not successfully differentiate trucks and busses from passenger cars. It is not believed suitable for use on three or four lane roads.


Electric Eye
1' Square
3" Square
4" Pipe
38"
6'-3"
1' Square
Light Source
Profile
Electric Eye Periscope
49'-6"
16°
36"
Light Source
12'-6"
18'-0"
17'-0"
3" Square
Mirror
Photo-electric cell
Lens
Light beam
Mirrors
36"
1'
1'
Light beam
Mirror
45°
DETAILS OF PERISCOPE FOR ELIMINATING PEDESTRIAN COUNT
To Washington
Columbia Pike
3% Down
AUTOMATIC COUNTER INSTALLATION
S. Quincy St.
Plan

INSTITUTE MEMBERS BUSY ON STATE-WIDE PLANNING SURVEYS

The series of planning surveys now under way or in course of preparation in 36 States in cooperation with the U. S. Bureau of Public Roads is utilizing the services of a number of members of the Institute. The activities of the Bureau in connection with the surveys are centered in the Division of Highway Transport, of which E. W. James (Member) is Chief. Assisting him are Lawrence S. Tuttle (Associate), directing field activities; L. E. Peabody (Member), technical consultant; E. H. Holmes (Associate), Bureau representative in Ohio; and Frank B. Curran (Affiliate), training personnel. D. Grant Mickle (Associate) is Assistant Director of the traffic survey in Michigan.

HAWLEY SIMPSON AWARDED WELLINGTON PRIZE

Hawley S. Simpson (Member) has been awarded the Arthur M. Wellington Prize by the American Society of Civil Engineers for his paper, "Use and Capacity of City Streets", according to Civil Engineering for January, 1936. Mr. Simpson graduated from the University of Michigan in 1922, with the degree of B. S. in C. E. Both prior to and immediately after graduation he was employed by the Michigan State Highway Department in the survey and construction of State Highways. From 1923 to 1925 he was in charge of the municipal engineering department of Verner, Wilhelm, and Molby, consulting engineers, of Detroit, Mich. During the next two years he was traffic engineer for the city of Detroit, during which time he supervised the first comprehensive traffic survey in that city. From 1927 to 1929 he was traffic engineer of Essex County, N. J. Since 1929 he has been research engineer for the American Transit Association, specializing in transportation and traffic work. He has written numerous articles on street traffic and has been a member of the traffic committee of various national organizations interested in that subject, including the Highway Research Board, the National Conference on Street and Highway Safety, and the National Safety Council. He was Secretary of the Institute from 1930 to 1935, inclusive.

FRANKLIN KREML AWARDED GOLD KEY

Franklin M. Kreml (Affiliate) was recently awarded a gold key by the Junior Chamber of Commerce for the most valuable civic contribution in the Chicago area.